### **ENVIRONMENTAL CHEMISTS**

Date of Report: August 7, 1996 Date Received: August 1, 1996

Project: Metro Self Monitor, PO #M54080 Date Samples Extracted: August 1, 1996 Date Extracts Analyzed: August 2, 1996

# RESULTS FROM THE ANALYSIS OF THE PROCESS WATER SAMPLE FOR CHROMIUM, COPPER, NICKEL, ZINC USING METHOD 6010

## Samples Processed Using Method 3005A Results Reported as mg/L (ppm)

Sample ID	Chromium	Copper	<u>Nickel</u>	<u>Zinc</u>
M54080	0.87	1.2	1.1	0.13
Method Blank	< 0.05	< 0.05	< 0.05	< 0.05

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Date of Report: August 7, 1996 Date Received: August 1, 1996

Project: Metro Self Monitor, PO #M54080

# QUALITY ASSURANCE RESULTS FOR TOTAL METALS BY INDUCTIVELY COUPLED PLASMA (ICP) (METHOD 6010)

Laboratory Code: 71171 (Duplicate)

	Reporting	Sample	Duplicate	Relative Percent	Acceptance
Analyte:	Units	Result	Result	Difference	Criteria
Chromiu	m mg/L (ppm)	0.87	0.87	0	0-20
Copper	mg/L (ppm)	1.2	1.2	0	0-20
Nickel	mg/L (ppm)	1.1	1.1	0	0-20
Zinc	mg/L (ppm)	0.13	0.12	8a	0-20

Laboratory Code: 71171 (Matrix Spike)

Analyte:	Reporting Units	Spike Level	Sample Result	% ] MS	Recovery MSD	Acceptanc Criteria	Relative e Percent Difference
Analyte.	Onits	Devei	itesuit	WIS	MISID	Criteria	Difference
Chromium	mg/L (ppm)	5	0.87	91	94	80-120	3
Copper	mg/L (ppm)	5	1.2	93	96	80-120	3
Nickel	mg/L (ppm)	10	1.1	92	94	80-120	2
Zinc	mg/L (ppm)	5	0.13	92	94	80-120	2

Laboratory Code: Spike Blank

	Reporting	Spike	%	Recovery	Acceptance	Relative Percent
Analyte:	Units	Level	MS	MSD	Criteria	Difference
Chromium	mg/L (ppm)	5	95	98	80-120	3
Copper	mg/L (ppm)	5	96	99	80-120	3
Nickel	mg/L (ppm)	10	95	97	80-120	2
Zinc	mg/L (ppm)	5	94	96	80-120	2

a - The analyte was detected at a level less than five times the detection limit. The RPD results may not provide reliable information on the variability of the analysis.

KNJ 1 3012 16th Avenue West Seattle, WA 98119-2029 (206) 285-8282 SAMPLE CHAIN OF CUSTODY Send Report To: Alaskan Contact GERAGE Address\_ City, State, Zip Sentile Phone # (206) FAX # (201) 387-4309 Date 8-1-91 PROJECT NAME SITE NO. PURCHASE ORDER # METRO Self monitor 54080 7238 PROJECT LOCATION MPLERS (signature) 3200 6th Ave 5 SAMPLE DISPOSAL INFORMATION MARKS Dispose after 30 days Return Samples Call for Instructions Date/Time Type of # of Lab Analyses Sample # Sampled Sample Jars Sample # Requested 8-1-56 9:45 1720 54080 71171 CK PRINT NAME COMPANY Date Time MATURE 8-1-96 A.C.W 10:25 8-1-96 FNC. 10:30am aquished by:

ORMS/COC

Mareived by:

RIEDMAN & BRUYA, INC.

06/25/96

#### **ENVIRONMENTAL CHEMISTS**

James E. Bruya, Ph.D Beth M. Albertson, M.S. Bradley T. Benson Kelley D. Wilt 3012 16th Avenue West Seattle, WA 98119-2029 TEL: (206) 285-8282 FAX: (206) 283-5044

August 7, 1996

## INVOICE # 96ACU0807-3 DUPLICATE COPY

Accounts Payable Alaskan Copper Works 628 South Hanford Seattle, WA 98134

RE: Project Metro Self Monitor, PO #M54080: Results of testing requested by Gerry Thompson, Project Manager for material submitted on August 1, 1996.

1 process water sample analyzed for Chromium, Copper, Nickel, and Zinc using Method 6010 @ \$65 per sample \$65.00

Amount Due \$65.00

## **ENVIRONMENTAL CHEMISTS**

James E. Bruya, Ph.D Beth M. Albertson, M.S. Bradley T. Benson Kelley D. Wilt 3012 16th Avenue West Seattle, WA 98119-2029 TEL: (206) 285-8282 FAX: (206) 283-5044

August 7, 1996

Gerry Thompson, Project Manager Alaskan Copper Works 628 South Hanford Seattle, WA 98134

Dear Mr. Thompson:

Enclosed are the results from the testing of material submitted on August 1, 1996 from your Metro Self Monitor, PO #M54080 project.

We appreciate this opportunity to be of service to you and hope you will call if you should have any questions.

Sincerely,

FRIEDMAN & BRUYA, INC.

Kurt Johnson

Chemist

keh

Enclosures ACU0807R.DOC